without adding new claims without canceling at least a corresponding number of claims. Entry of the amendments is requested.

Specifically, new independent claims 48 and 49, contain recitations of pending claims 6 and 7 as well as elements of the disclosed invention identified by the Examiner in the sentence spanning pages 2-3 of the Office Action dated July 15, 2002 (Paper No. 11)[1] (i.e., alkaline protein, molecular weight of 40-43 kDa and pI of greater than about 7.0). These aspects of the disclosed inhibitor are described in the specification, for example, at page 5, lines 23-31, and page 19, lines 25-30 of the specification, as well as originally-filed claims 14 and 15.

The recitation of dependent claim 50 is described, for example, at page 5, line 31 to page 6, line 3, page 6, lines 11-16, page 20, lines 5-8 and originally-filed claims 8-12 of the specification. The Examiner has previously considered a similar recitation in pending claims 8-13, as also evidenced by the Examiner's comments in Paper No. 11.

The recitation of dependent claim 51 is described, for example, at page 6, lines 3-10, page 6, lines 17-28, page 20, lines 9-16 and originally-filed claims 8-12 of the specification. The Examiner has previously considered a similar recitation in pending claims 8-13, as also evidenced by the Examiner's comments in Paper No. 11.

The recitations of dependent claim 52-57 are described, for example, at page 5, lines 14-23 and the Examiner has previously considered a similar recitation in pending claim 6.

[1] The applicants acknowledge, with appreciation, the Examiner's suggestion that an inhibitor described as indicated may overcome the outstanding Section 112, first paragraph, rejections of claims 6-13. For the reasons noted below, the applicants have revised the claims above with the Examiner's comments and the originally-filed disclosure in mind.

No new matter has been added and the amendments are not believed to raise new issues requiring further consideration and/or search. Entry of the amendments is requested.

The Section 112, first paragraph, rejections of claims 6-13, will be moot upon entry of the above amendments. The claims have been amended to advance prosecution. The amended claims are submitted to be supported by an enabling disclosure which demonstrates that the applicants were in possession of the claimed invention at the time the application was filed. Consideration of the following in this regard is requested.

Initially, the applicants note that the Examiner has characterized the disclosed invention as a protein "having two subunits". See, lines 9-10 of ¶ 4 of page 2 of Paper No. 11 and lines 17-18 of ¶5 of page 3 of Paper No. 11. To the extent the Examiner's comment arose from the remarks presented at page 3, line 20 of the Amendment dated May 6, 2002, the applicants regret any confusion caused by the same. The specification does not literally describe the existence of "two subunits", as suggested by the Examiner and the remarks of the Amendment. In fact, the specification and originally-filed claims describe the disclosed inhibitor as

> "a proteinaceous species having a pI ... of greater than about 7.0 ... [and having] ... a molecular weight as determined by SDS-page [which] is typically 40-43 kDa. Following reduction with ß-mercaptoethanol three SDS-page protein bands are found with SDS-page molecular weights of ca. 40-43 kDa, ca. 30 kDa, and ca. 10 kDa. See, page 5, lines 24-31 of the specification.
>
> In this way, we obtained a fraction (1 mL) of the inhibitor which migrated as a single protein band on SDS-PAGE. It had an apparent

> molecular weight of ca.[2] 40-43 kDa. Following reduction with ß-mercaptoethanol, two additional SDS-PAGE bands of molecular weights of typically 30 and 10 kDa are detected. See, page 19, lines 24-30 of the specification.
>
> [Originally-filed claim] 14. Inhibitor as in any of claims 7 to 13, characterised in that said protein or glycoprotein is selected from the group comprising proteins or glycoproteins having a molecular weight typically between 40 kDa and 43 kDa, proteins or glycoproteins having a molecular weight typically 30 kDa and proteins or glycoproteins having a molecular weight of typically 10 kDa.

Accordingly, the applicants believe that one of ordinary skill in the art will recognize from the whole of the specification that the disclosed inhibitor has an apparent molecular weight of 40-43 kDa as measured by SDS-PAGE. Moreover, the disclosure describes an inhibitor which may also be independently described as having a molecular weight of about 40-43 kDa as measured by SDS-PAGE and being able to resolve as two separate bands on SDS-PAGE after reduction with ß-mercaptoethanol, the two separate bands having molecular weights of about 30 kDa and about 10 kDa. The specification is not believed to literally describe the existence of "two subunits" as described previously in the applicants remarks and subsequently by the Examiner in Paper No. 11. The claims have been amended therefore with Examiner's comments and the literal description of the specification in mind.

The applicants submit that the specification enables one of ordinary skill in the art to make and use the claimed invention. The specification is further believed to provide an adequate written description of the invention claimed above.

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[2] "ca. ... circa" and "circa ... In approximately" See, pages 1344 and 264 of WEBSTER'S II New Riverside University Dictionary, The Riverside Publishing Company, A HOUGHTON MIFFLIN COMPANY, Boston MA (1984).

As for the Examiner's Section 112 rejections of claims 6-13, the above claims are not directed to any proteinic or glycoproteinic xylanase inhibitor having any structure or amino acid sequence, or any xylanase inhibitor comprising any amino acid sequence that is at least 70% or 85% identical to SEQ ID NO:1 or SEQ ID NO:2, as indicated as a basis for the Section 112 rejections of claims 6-13. See, pages 2 and 3 of Paper No. 11. Rather, the Examiner will appreciate that the structure of a compound and it's properties are related and either may be used to describe the same. There is no requirement in the Law or Rules or MPEP that an applicant describe or claim a compound by its structure. There are many valid patents issued by the Patent Office wherein compounds are described and claimed by the physical properties of the compounds, such as are recited in the above claims. The applicants submit that the present disclosure and above claims provide a sufficiently detailed, relevant identifying characteristics of the claimed invention such as a complete or partial structure, other physical and/or chemical properties, and/or functional characteristics. The claimed invention is submitted to be adequately described in the specification in such a full, clear, concise and exact manner that an ordinarily skilled artisan would recognize that the applicants were in possession of the claimed invention. As noted above, support for the claimed invention may also be found in the originally-filed claims.

For reasons similar to those noted above, and of record, the applicants further submit that the specification teaches one of ordinary skill how to make and use the claimed invention. The specification provides a representative sample or species within the claimed invention; the specification provides a description of how to obtain further representative species, without requiring an undue amount of experimentation, and how

to confirm that further representative members of the claims have been obtained. Moreover, the specification teaches how to use the claimed invention. See, for example, the Examples of the specification. Nothing further should be required.

Entry of the above amendments and allowance of the newly-presented claims are requested. The Examiner is requested to contact the undersigned in the event anything further is required in this regard.

Respectfully submitted,

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